

A new species of *Vulgichneumon* HEINRICH, 1961, from Spain

(Hymenoptera, Ichneumonidae, Ichneumoninae, Ichneumonini)

Jesús SELFA and Jorge L. ANENTO

Abstract

Vulgichneumon horstmanni is described as new from Spain and compared with the most closely related species *Vulgichneumon deceptor* (SCOPOLI, 1763).

Introduction

During a research of some high ecological valuable areas of the Valencian Community (Spain) in 1992, we discovered a new species which is described in this paper.

Earlier Dr. HORSTMANN examined briefly the species and regarded it as belonging to *Barichneumon* THOMSON, 1893, (sp. 4). This species belongs to the genus *Vulgichneumon* HEINRICH, 1961, possessing the following characters: thyridia are far from base of tergite 2 to a distance at least equal to its width; sub-tegular ridge acuminate; frons rugose and punctate; and flagella of female filiform.

Methods

A part of material was collected by us of a white malaise trap. The model used (SCHROEDER et al. 1975) had a mesh opening of 0,8 mm. The sampling frequency ranged between 7 and 15 days.

For the description, we also studied other specimens related in HORSTMANN (1992), and collected with malaise trap too (model of TOWNES 1972) (pers. comm.).

The closely related species of *Vulgichneumon horstmanni* sp.n., was compared using a field emission scanning model Hitachi S-4100. The acceleration voltage was of 1,4 KV, and the specimens were not golded.

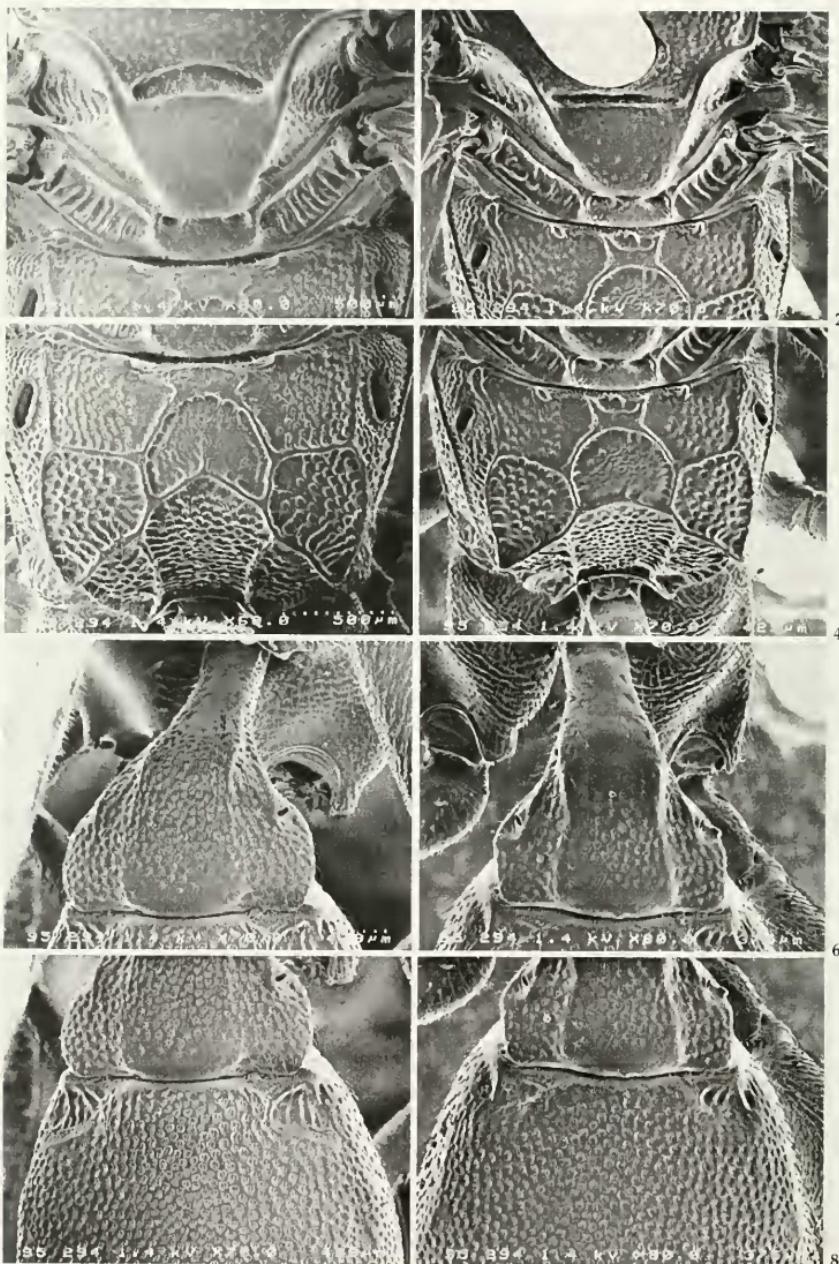
Results

Vulgichneumon horstmanni sp.n.
(Figs. 1, 3, 5, 7, 9, 11, 13, 15)

Description

♀: Head black; vertex with white spots; sometimes supraclypeal area and clypeus with red; mandibulae centrally red; labrum red; palpi brown. Flagella dorsally black, dorsal white ring on segments 7-13(14), segments 1-6 ventrally blackish and with a distal red ring, remaining segments of flagella ventrally dark brown; scapi all black or ventrally red.

Thorax black; white colour on pronotal collar, hind corner of pronotum, subtegular ridge, scutellum and postscutellum; tegulae red. Pterostigma black, sometimes centrally red and yellow on the corners. Legs with all coxae and trochanters dorsally black and ventrally dark red or brown; all femora and tibiae dark red to brown, front tibiae with white colour on lateroventral



part; all tarsi black or, front and middle tarsi dark brown with lateroventral red colour and the hind tarsi with distal red ring.

Gaster red; tergite 5 black with red on half basal and lateral parts, sometimes with a small central white spot on distal part; tergites 6-7 black, centrally with a white spot on all length.

Body generally polished and punctate.

Head linearly narrowed in dorsal view; lateral ocellus-eye distance 5,3-5,5 times shorter than eye length; facies 1,6-1,8 times wider than long; supraclypeal area and facial orbitae raised; clypeus truncated, weakly curved, in the greatest part dull and punctate; genae punctulate; malar space 1,2-1,4 times shorter than base of mandibulae; mandibulae 1,5-1,7 times longer than its basal width, upper tooth bigger than lower; genal carina meeting oral carina far from base of mandibulae. Antennae distally acuminate, ventrally flattened starting from the white ring; flagella with 38-39 segments (38 in holotype), first segment 1,3-1,5 times longer than wide.

Mesoscutum strongly punctate; scutellum polished and scarcely punctate; prescutellar carinae cover the distal part of scutellum; sternauli cover almost the middle part of mesopleura; front mesosternal carina raised before the front coxae and not interrupted; propodeum with distinct carinae and densely punctate; area superomedia 1,0-1,2 times wider than long, rugulose and sometimes with a central keel. Hind femora 3,5-3,7 times longer than wide.

Postpetiolus with dorsolateral carinae weakly marked and curved, middle field punctate; tergite two 1,15-1,25 times wider than long; gastrocoeli more or less deep and with strong keels; base of tergite 2 densely punctate; interthyridial space 3 times wider than thyridium width; remaining part of tergite 2, tergite 3 and the half basal part of tergite 4 punctate too; remaining part of gaster punctulate, tergites 6-7 polished; ovipositor longer than apex of gaster, 3 times smaller than length of hind basitarsus; ovipositor with gross and hairy valvae; hypopygium short.

Body length: 10-12 mm (10 mm in holotype). Fore wing length: 6-7 mm (6 mm in holotype).

♂: Facial orbitae with white colour. Flagella dorsally black and ventrally brown, with white ring on segments 11(12)-17(18).

Pronotum with white colour on collare and upper border; tegulae black and white marked on half basal part; subtegular ridge white; propodeum black, with variable white colour on second and third lateral, third pleural and petiolaris areas. Middle and hind femora distally white.

Petioli and half or third basal part of postpetiolus black, the remaining of postpetiolus red; lateral white spots on distal part of tergites (1)2-3; half basal part of tergite 5 with variable red colour. Remaining coloration like female.

Body more dull and punctate than female.

Facies 1,2-1,4 times wider than long, densely punctate, supraclypeal area hardly rugulose; clypeus and genae densely punctate; malar space 1,6-1,8 times smaller than base of mandibulae. Flagella with 36-37 segments, tyloidae on segments 5(6)-15(16), first segment 1,5-1,7 times longer than wide, second segment shorter than first.

Area superomedia 1,2-1,4 times wider than long. Hind femora 3,7-3,9 times longer than wide.

Gastral tergite two 1,0-1,2 times longer than wide. Remaining morphology like in female.

Body length: 10-12 mm. Fore wing length: 6-7 mm.

◇

Fig. 1. *Vulgichneumon horstmanni* sp. n. ♀. Paratype. Scutellum. × 60.

Fig. 2. *Vulgichneumon deceptor* (SCOPOLI). ♀. Scutellum. × 70.

Fig. 3. *Vulgichneumon horstmanni* sp. n. ♀. Paratype. Propodeum. × 60.

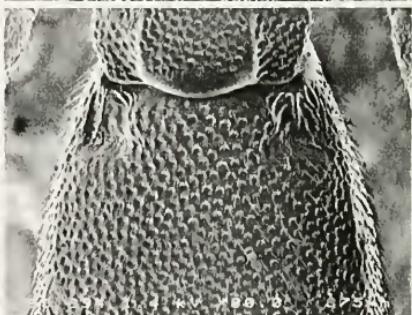
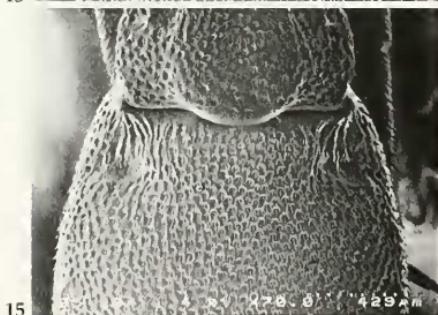
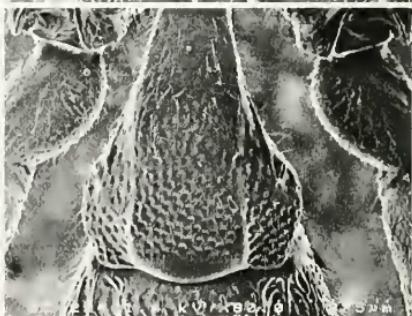
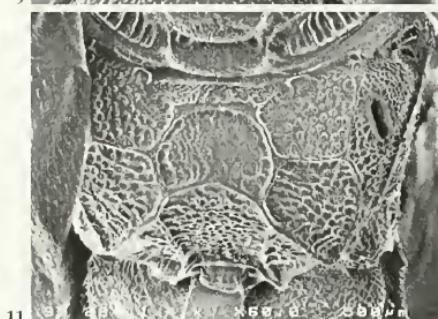
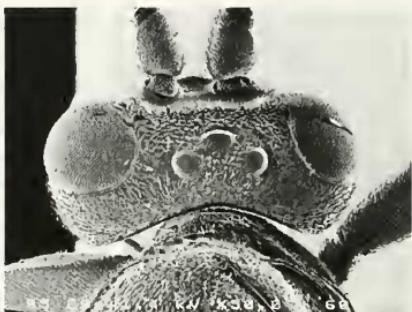
Fig. 4. *Vulgichneumon deceptor* (SCOPOLI). ♀. Propodeum. × 70.

Fig. 5. *Vulgichneumon horstmanni* sp. n. ♀. Paratype. Tergite 1. × 70.

Fig. 6. *Vulgichneumon deceptor* (SCOPOLI). ♀. Tergite 1. × 80.

Fig. 7. *Vulgichneumon horstmanni* sp. n. ♀. Paratype. Base of tergite 2. × 70.

Fig. 8. *Vulgichneumon deceptor* (SCOPOLI). ♀. Base of tergite 2. × 80.



Material examined:

Holotype: ♀, Spain, Alacant, Moraira, garrigue, 90 m, 21-27/V/1989, coll. HORSTMANN, R. WAHIS leg., malaise trap, det. HORSTMANN as *Barichneumon* sp. 4, in coll. Zoologische Staatssammlung München.

Paratypes: 1♀, Spain, Alacant, Moraira, garrigue, 90 m, 3-11/VI/1989, coll. HORSTMANN, R. WAHIS leg., malaise trap, det. HORSTMANN as *Barichneumon* sp. 4, in coll. HORSTMANN; 1♂, Spain, Alacant, Moraira, garrigue, 90 m, 20-27/IX/1989, coll. HORSTMANN, R. WAHIS leg., malaise trap, det. HORSTMANN as *Barichneumon* sp. 3, in coll. HORSTMANN; 1♂, Spain, Alacant, Moraira, garrigue, 90 m, 5-7/X/1989, coll. HORSTMANN, R. WAHIS leg., malaise trap, det. HORSTMANN as *Barichneumon* sp. 3, in coll. Zoologische Staatssammlung München; 1♀, Spain, Valencia, El Saler, 3-17/XI/1992, F. Luna leg., white malaise trap, in coll. Universitat de València; 2♂♂, Spain, Valencia, El Saler, 6-13/VII/1992, F. Luna leg., white malaise trap, in coll. Universitat de València; 1♂, Spain, Valencia, El Saler, 13-20/VII/1992, F. Luna leg., white malaise trap, in coll. Universitat de València; 2♂♂, Spain, Valencia, El Saler, 20-27/VII/1992, F. Luna leg., white malaise trap, in coll. Universitat de València.

Discussion

Vulgichneumon horstmanni sp.n. is closely related to *Vulgichneumon deceptor* (SCOPOLI, 1763) (Fig. 2,4,6,8,10,12,14, 16). The differences between both are listed as follows:

V. horstmanni ♀

White ring of flagella on segments 7-13(14).
Pronotal collar, hind corner of pronotum and postscutellum white.
Tergite 4 red.
Antennae acuminate.
Head linearly narrowed in dorsal view.
Clypeus in the greatest part dull and punctate.
Mesoscutum polished and scarcely punctate.
Prescutellar carinae cover the distal part of scutellum.
Sternauli punctate.
Postpetiolus with weak dorsolateral carinae.
Middle field of postpetiolus scarcely punctate.
Gastrocoeli deep, with marked keels.

V. deceptor ♀

White ring of flagella on segments 6-12(13).
Pronotal collar, hind corner of pronotum and postpostscutellum without white.
Tergite 4 black, red on its borders.
Antennae subfifiform.
Head not linearly narrowed in dorsal view.
Clypeus in the greatest part polished and punctulate.
Mesoscutum dull and densely punctate.
Prescutellar carinae cover the middle part of scutellum.
Sternauli striate.
Postpetiolus with strong dorsolateral carinae.
Middle field of postpetiolus densely punctate or rugose-punctate.
Gastrocoeli more shallow, with weak keels.

□

Fig. 9. *Vulgichneumon horstmanni* sp. n. ♂. Paratype. Head in dorsal view. × 50.

Fig. 10. *Vulgichneumon deceptor* (SCOPOLI). ♂. Head in dorsal view. × 50.

Fig. 11. *Vulgichneumon horstmanni* sp. n. ♂. Paratype. Propodeum. ×× 60.

Fig. 12. *Vulgichneumon deceptor* (SCOPOLI). ♂. Propodeum. × 70.

Fig. 13. *Vulgichneumon horstmanni* sp. n. ♂. Paratype. Postpetiolus. × 70.

Fig. 14. *Vulgichneumon deceptor* (SCOPOLI). ♂. Postpetiolus. × 80.

Fig. 15. *Vulgichneumon horstmanni* sp. n. ♂. Paratype. Base of tergite 2. × 70.

Fig. 16. *Vulgichneumon deceptor* (SCOPOLI). ♂. Base of tergite 2. × 80.

V. horstmanni ♂

Flagella with white ring.
Postscutellum white.
Gaster with white on tergites 2-3.
Head lineally narrowed in dorsal view.
Interthyridial space 3 times larger than thyridium width.

V. deceptor ♂

Flagella without white ring.
Postscutellum black.
Gaster without white on ter gites 2-3.
Head rounded in dorsal view.
Interthyridial space 2,5 times larger than thyridium width.

Acknowledgements

The authors are greatly indepted to Dr. K. HORSTMANN for kind loan of the material, to Mr. E. DILLER (Zoologische Staatssammlung) for their advices, and to Mr. A. TATO (Secció de Microscòpia Electrònica del Servei Central de Suport a la Investigació Experimental, Universitat de València) for to help on the pictures.

References

HEINRICH, G.H. 1961: Synopsis of Nearctic Ichneumoninae stenopneusticae with particular reference to the ortheastern Region. Part I. Introduction, key to Nearctic genera of Ichneumoninae stenopneusticae, and synopsis of Protichneumonini North of Mexico. - Can. Ent. Suppl. **15**, 1-87.

HORSTMANN, K. 1992: Zur Zusammensetzung und Phänologie der Ichneumoniden-Zönose eines mediterranen Habitats in Südost-Spanien (Hymenoptera). - Zool. Beitr. N. F. **34** (1), 157-166.

SCHROEDER, M., MITCHELL, J.C. & SCHMID, J. 1975: Modifications in the Malaise trap. - M.S. Rock Forest & R. Exper. Sta. **1**, 1-2.

SCOPOLI, J.A. 1763: Entomologia carniolica exhibens insecta Carniolae indigena et distributa in or- dines, genera, species, varietates, methodo Linnaeana. - Vindobonae **26**, 1-420.

THOMSON, C.G. 1893: Opuscula entomologica. - **18**, 1889-1967.

TOWNES, H. 1972: A light-weight Malaise trap. - Entomol. News. **83**, 239-247.

Anschrift der Verfasser:

Jesús SELFA & Jorge L. ANENTO
Laboratori d'Entomologia i Control de Plagues
Departament de Biología Animal
Universitat de València
Dr. Moliner, 50, E-4100 Burjassot (València), Spain

Das Deutsche Entomologische Institut und sein Verein der Freunde und Förderer

Klaus ROHLCIEN

Geschichte

Das Deutsche Entomologische Institut (DEI) entstand 1886 als Stiftung deutscher Entomologen an die Stadt Berlin. Der spiritus rector war Gustav KRAATZ, der Jahrzehnte Vorsitzender des Berliner Entomologischen Vereins und der Deutschen Entomologischen Gesellschaft und ebenso lange Redakteur ihrer Zeitschriften war. 1922 übergibt die Stadt Berlin das Institut an die